1.0 INTRODUCTION

Jacques Whitford Company, Inc. (Jacques Whitford) was contracted by Renee J. Lewis to complete Phase I and II Environmental Site Assessments (ESA) of the property located at 13 Depot Street, Windham, Maine, hereinafter referred to as the "Subject Site." A Site Location Map (Figure 1) and a Site Plan (Figure 2) showing the Subject Site location and depicting general site characteristics are presented in **Appendix 1** of this report. The Phase I ESA was prepared in general accordance with the American Society of Testing and Materials (ASTM) E 1527-00 (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process). These Phase I and II ESAs were conducted in accordance with Jacques Whitford proposals dated April 26, 2004 and May 12, 2004. These proposals were authorized by Renee J. Lewis. The Phase I and II ESA objectives, scope, and limitations are presented in the following sections.

1.1 Objective

The objective of the site investigation was to identify actual or potential *recognized environmental conditions* associated with the Subject Site, which may exist as a result of current or historical activities conducted on the Subject Site or on adjoining properties. The term recognized environmental conditions, as outlined in ASTM 1527, means "The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

Additionally, the purpose of the environmental assessment was to permit the user to satisfy one of the requirements to qualify for the innocent landowner defense to Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) liability.

1.2 Scope of Work

The Phase I ESA completed by Jacques Whitford consisted of the following:

- Municipal and State Records review;
- Interviews with regulatory officials, local officials, and personnel associated with the Subject Site and neighboring properties;
- A Subject Site visit; and,
- Evaluation of information and preparation of this report.

The Phase II Scope of Work conducted by Jacques Whitford consisted of the following:

- Identification of testpit locations, evaluation of excavator access and obtaining Dig-Safe utility clearance;
- Conducting a one-day testpitting program that focussed on areas of concern identified by the Phase I ESA;
- Conducting Photoionization Detector (PID) screening for the presence of volatile organic compounds (VOCs) from each test pit;
- Submitting soil samples for chemical analysis to evaluate the presence of VOCs, metals, PCBs, and GRO from locations of stained soil on the Subject Site, soil from the floor drain located in the garage, and soil from test pits with elevated PID readings; and,
- Evaluation of information and preparation of this report.

Selected photographs taken by Jacques Whitford during the site reconnaissance are presented in **Appendix 2** of this report. Resource contact information and relevant Subject Site information are presented in **Appendix 3.** Educational and professional experience summaries for the Jacques Whitford personnel responsible for this assessment and report preparation are presented in **Appendix 4**. A copy of the federal and state environmental database search assembled by Environmental Data Resources, Inc. is attached as **Appendix 5.** Test pit exploration logs are contained in **Appendix 6,** and analytical laboratory reports are contained in **Appendix 7**.

1.3 Limiting Conditions

The Subject Site and readily visible and publicly accessible portions of adjoining properties were examined for the presence of actual or potential recognized environmental conditions. The only area inaccessible to Jacques Whitford was the roof of each building. Neighboring properties were viewed from publicly accessible areas.

Historical information sources researched in this assessment allowed uses of the property to be traced from the present back to 1922, when the Subject Site was apparently used as a residence and general store. Site use could not be determined back to a time when the site was undeveloped land, thereby constituting historical data failure per ASTM Standard E 1527-00.

1.4 Limitations of the Assessments

This Phase I and II ESAs were prepared in accordance with the Scope of Work described in Section 1.2. The work conducted by Jacques Whitford is limited to the services agreed to with Renee J. Lewis, and no other services beyond those explicitly stated should be inferred or implied.

Jacques Whitford's Phase I ESA is limited to visual observations of Subject Site conditions on the day inspected; review of readily available and relevant data; and statements made and information provided by the client, their agents, outside parties, and regulatory agencies. Jacques Whitford has exercised due and customary care in the conduct of its assessment, but in cases where it was not reasonably ascertainable, information provided by others was not independently verified.

The Phase I ESA is a limited and non-exhaustive survey that is intended to evaluate whether readily available information indicates that the historic or current use of the Subject Site resulted in contamination by petroleum products or hazardous substances. As a result, without a comprehensive sampling and analysis program or implementation of services beyond the original scope of work, certain conditions, including but not limited to those summarized below, may not be revealed:

- Naturally occurring toxic substances or elements found in the subsurface soils, rocks, or water;
- Toxic substances commonly found in current habitable environments, such as stored household products, building materials, and consumables;
- Biological or infectious agents or pathogens;
- Contaminant plumes (liquid or gaseous) below the surface from a remote or unknown source;
- Contaminants or conditions that do not violate current regulatory standards, but may violate such standards in the future; and,
- Unknown, unreported, or not readily visible site contamination.

Some of the information presented in this report was provided through existing documents and interviews. Although attempts were made, whenever possible, to obtain a minimum of two confirmatory sources of information, Jacques Whitford in certain instances has been required to assume that the information provided is accurate.

The conclusions presented represent the best judgement of the assessor based on current environmental standards and on the site conditions observed on May 7, 2004. Due to the nature of the investigation and the limited data available, the assessor cannot warrant against undiscovered environmental liabilities.

Should any conditions at the site be encountered which differ from those observed, we request that we be notified immediately in order to assess the additional information and its effects on the above conclusions.

This report has been prepared for Renee J. Lewis, and it should be emphasized that conditions at the Subject Site can change over time. The use of this report by third parties shall be at their own risk.

2.0 ENVIRONMENTAL SETTING

Environmental characteristics including topography, geology, and hydrogeology were evaluated based on Subject Site observations, published literature and maps, and readily available public information.

2.1 Topography

The surface topography of the Subject Site slopes slightly downward from the northeast to the southwest with a regional topography sloping gradually downward to the southwest. The Subject Site is located approximately 130 feet to 120 feet above mean sea level (msl).

2.2 Surface Water and Drainage

As depicted on Figure 1 and Figure 2, there were no naturally occurring surface water bodies on the Subject Site. A drainage ditch was observed near the southern and western borders of the Subject Site. The ditch apparently drains into a catch basin southwest of the site.

During the site reconnaissance a discharge pipe was observed in the wall of the drainage ditch near the southern border of the site. According to former Subject Site owner Merrill Lasky, the pipe drains the subsurface in the area of a scale near the west wall of the warehouse building.

According to a Flood Insurance Rate Map, Panel Number: 2301890025B, the Subject Site is not located within the 100-year or 500-year flood zones.

2.3 Wetlands

No obvious evidence of wetlands or wetland vegetation was observed on the Subject Site during the site reconnaissance.

2.4 Geology/Soils

According to the EDR report, bedrock geologic units in the area of the Subject Site consist of eugeosynclinal deposits of Devonian and Sulurian-age rocks. No outcrops were observed on the Subject Site. During test pitting, Jacques Whitford encountered suspect bedrock from approximately 2 feet to 8 feet below ground surface.

Based on a review of USDA Soil Conservation Service information provided by EDR, the soil types found in the area of the Subject Site include Scantic silt loam. Scantic soils exhibit poor drainage with very slow infiltration rates. Scantic soil (Presumpscot Formation clayey silt) was observed during Phase II testpitting at the site (see Section 4.2.1).

During test pitting, groundwater was not observed with the exception of three pits where minimal groundwater seepage was encountered. This groundwater appeared to be in a perched condition.

2.5 Groundwater

Based on the United States Geological Survey (USGS) Topographic Map for Portland West, Maine (1994, 1:24,000), shallow groundwater is interpreted to flow southwest toward the Presumscot River. The groundwater table was not encountered in the test pits excavated at the site.

3.0 PHASE I ESA

3.1 Site Investigation

Information concerning the Subject Site was obtained during the site reconnaissance conducted by Mr. David Chapman and Mr. Aaron Martin of Jacques Whitford on April 29, 2004, during interviews with representatives familiar with the Subject Site, and through review of the documents referenced in this report. Selected photographs of the Subject Site and building taken during Jacques Whitford's site visit are provided in **Appendix 2.**

3.1.1 Site Description and Use

The Subject Site is designated by the Town of Windham Building Department as Map 38, Lot 6 and is approximately 40,850 square feet. The ground surface is improved with an approximate 375 square-foot concrete parking area and an approximate 1,500 square-foot bituminous concrete (asphalt) parking area located adjacent to the former railroad station (refer to Figure 2). The remainder of the parking area has a gravel and sand surface.

As shown of Figure 2, the Subject Site contains three buildings; a former railroad station, a garage, and a warehouse. The Subject Site also contains a 10,000-gallon railroad car used as an aboveground storage tank (AST), two railroad box cars and an in-ground scale. One unused aboveground hydraulic hoist was located next to the northern boxcar.

The site perimeter is bordered by an earthen embankment with trees and shrubs leading down to a drainage ditch that flows adjacent to the southern and western boundaries of the property. The entire embankment is littered with wood, concrete, automotive, and miscellaneous debris piles. Twenty-five to thirty abandoned automobiles were observed in the parking lot of the Subject Site.

A summary of building information is presented in Table 1 below.

Table 1 – Summary of Lot and Building Information	
Property	
Area	Approximately 40,850 square feet
Buildings	
Area (square feet)	Garage: approximately 1,400; warehouse: 3,240; former railroad station: 994
Services: Sewer, Water, Electricity, Natural gas, Telephone	According to Merrill Lasky, a former owner, sewerage services are provided by the Portland Water District. Water services are provided by the Portland Water District. Electricity is provided by Central Maine Power.
Floor Drains	One floor drain was observed in the garage building.
Lighting	Fluorescent and incandescent.
Number of Stories	Garage: 2 stories; warehouse: 1 story; former train station: 1.5 stories.
Foundation	Garage and former train station: concrete slab; warehouse: concrete piers;
Basement	None. The warehouse has an enclosed crawl space under the northern portion of the building and an open storage space under the southern portion of the building.
Roof	Wood frame with shingles or metal covering.
HVAC	The warehouse building is heated with an oil-fired forced-hot-water boiler. The garage building is heated with an oil furnace and with hot water from the warehouse heating system. The former railroad station is not heated

The 1,320 square-foot garage is constructed on a concrete slab with no basement in the southeast corner of the Subject Site. The building is in poor condition and contains one known floor drain. Building improvements include electricity, hot-water plumbing connected via the warehouse oil furnace, a bathroom, an oil furnace connected to a 275-gallon AST with fill and vent pipes, an overhead hot water heater, and fluorescent lighting (with ballasts that may contain PCBs). The second floor is currently being used as storage for miscellaneous materials.

The second building at the site, a 994 square-foot former railroad station, sits on a concrete slab with no basement. The building is in poor condition. Insulation between the building walls consists of coal or charcoal. Building improvements include electricity and fluorescent lighting that may contain PCBs. The building currently is used as storage for automobile transmissions and other automobile engine parts along with miscellaneous items such as compressed gas cylinders.

The 3,420 square-foot warehouse and residence was constructed on concrete piers in 1960 along the eastern edge of the Subject Site. The building is in good condition. The building is partitioned into an apartment in the northwestern half of the building and mini-storage throughout the remainder of the building. Building features include plumbing, an oil-furnace

connected to a 275-gallon AST in the locked storage room under the building, electricity, and fluorescent lighting (with ballasts that may contain PCBs). The warehouse is currently used as an apartment and for storage of automotive parts and miscellaneous items.

The two steel-walled, wooden-floor, railroad boxcars are each 410 square-feet in size (refer to Figure 2). They are in poor condition and were moved to their current location in 1984 on the western side of the Subject Site. They are aligned parallel to each other and their longer sides face north and south, separated from each other by about twenty feet. They are currently being used as storage for automotive engines, transmissions, and other miscellaneous materials.

The 10,000-gallon steel AST was installed in 1983 between the former depot station and the southern railroad boxcar on the western edge of the Subject Site (Figure 2). It is constructed on a steel frame with a concrete foundation, and it is used to store #2 fuel oil. The AST is surrounded on all sides by an earthen berm. There was no indication of prior spills or leaks and the tank appeared to be in good condition.

The 240 square-foot concrete scale is located adjacent to the warehouse on the western side and apparently is drained via a discharge pipe that discharges into the drainage ditch at the southeastern border of the Subject Site.

3.1.2 Pits, Ponds, Lagoons

No pits, ponds, or lagoons were observed on the Subject Site during the site reconnaissance.

3.1.3 Water Wells

No on-site water supply wells or groundwater monitoring wells were observed during Jacques Whitford's inspection of the Subject Site. Potable water has been supplied to the subject site by the Portland Water District since 1948. Three water wells are located on private properties less than 1,000 feet from the Subject Site. The Boulanger water well is located 575 feet north of the Subject Site; the Georgatos water well is located 450 feet northeast of the Subject Site; and the Reed water well is located 600 feet east of the Subject Site. These wells are situated at an elevation between 10 and 20 feet higher than the Subject Site. Public water is available to all three properties.

3.1.4 Above and Underground Storage Tanks

Jacques Whitford observed one 10,000-gallon AST and two 275-gallon ASTs (refer to Figure 2). Residual oil was observed in the 10,000-gallon AST. The two 275-gallon tanks are currently in use. EDR indicated that one 550-gallon UST was removed near the northwest outside corner of the garage (southeast portion of site).

Jacques Whitford reviewed records maintained by the Town of Windham Building Department. The file contained information indicating that the 550-gallon UST was used for storage of gasoline, and the 10,000-gallon AST was used for storage of #2 fuel oil. The records noted the tanks were

installed in 1983. The 550-gallon UST was subsequently removed from the site in 1993 (refer to Section 3.5).

3.1.5 Material Storage

Drums and Containers

Jacques Whitford observed a 55-gallon drum labeled oil, a 55-gallon drum labeled corrosive, and another labeled antifreeze. These drums appeared to be in good condition and they were stored on the concrete parking lot. There was no apparent staining or leakage originating from the drums.

We observed numerous unmarked closed 5-gallon containers, unlabelled open containers apparently containing petroleum, automotive gasoline tanks containing petroleum, and empty 55-gallon drums both outside on the property and inside all three buildings and box cars.

We observed three 55-gallon drums on the property to the east across the railroad tracks. The drums were observed on the soil, laying on their sides. Refer to photograph 14 of Appendix 2 for a picture of the 55-gallon drums on the adjoining property to the east.

Waste and Scrap Material

Jacques Whitford observed numerous automobile transmissions, engines, automotive batteries, other automotive parts, and miscellaneous debris piles inside all three buildings, inside the boxcars, and stored on the soil at the Subject Site. Apparent oil staining was observed on the concrete floors, boxcar floors, and on soil in the majority of areas where these parts were stored. The automotive batteries were observed on the concrete floor in the garage. The batteries appeared to be in good condition and no staining or leakage was observed around the batteries.

3.1.6 Spill and Stain Areas

Several petroleum stains were observed on the floors in all three buildings, on the wooden floors inside both boxcars, and on the soil surface at various locations on the Subject Property. The surface soil and floor staining around automotive components and containers is likely a result of repair activities in the garage and storage of automotive parts in the buildings, box cars, and on the Subject Property. Refer to photographs 10, 11, and 12 of Appendix 2 for pictures of staining surrounding automotive components.

3.1.7 Wastewater Discharges

One six-inch diameter, circular, floor drain was observed in the garage. Staining was noted on the concrete floor near the drain. No obvious chemical odors were noted in the drain. In a telephone interview on May 7, 2004, Mr. Lasky indicated that the drain discharged directly to the subsurface under the building. For a picture of the floor drain refer to Photograph 13 of Appendix 2. A surface soil sample was collected from sediment in the floor drain and a

headspace PID reading was conducted during the Phase II investigation as discussed in Section 4.

Mr. Lasky said that the sewage from the storage building and garage discharged to a septic/lift station, which conveyed the sewerage to the municipal sewage system. Mr. Kittrell, property owner, when interviewed on April 29, 2004, said he knew of no leachfields at the site.

We observed a PVC outfall pipe discharging to the drainage ditch at the adjoining mill property near the Subject Site's southerly property line. Mr. Lasky believed this outfall pipe drained the subsurface area near the in-ground scale west of the warehouse.

3.1.8 Polychlorinated Biphenyls (PCBs)

One pole-mounted transformer, which may contain PCBs, was observed near the northeast corner of the Subject Site. No evidence of leaks or staining was observed. The former railroad station, warehouse, and garage all contain fluorescent lighting, and due to the age of the buildings, PCBs may be present within the fluorescent lighting components. Two aboveground hydraulic lifts were observed in the garage. No evidence of leaks or staining was observed immediately beneath the hydraulic lifts. One hydraulic lift was observed near the northwest boxcar. Evidence of leaks or staining was observed on the soil around the hydraulic lift. A surface soil sample was collected near the hydraulic lift to determine the presence of PCBs (see Section 4.0). For a picture of the hydraulic lift near the boxcar, refer to Photograph 5 of Appendix 2.

3.1.9 Asbestos-Containing Materials (ACM)

Neither an exhaustive asbestos survey nor testing for ACMs was performed as part of this assessment. Based on the age of the Subject Site buildings (prior to 1980) certain building materials may contain ACMs. Suspect ACMs included floor tile, mastic and wallboard. Potential ACM was also observed between the inner and outer walls of the 10,000-gallon AST (railroad car).

3.1.10 Lead Paint

Based on the age of the Subject Site buildings (prior to 1978), lead-based paint may be present. Painted surfaces appeared to be in good to poor condition.

3.1.11 Hydraulic Lifts and/or Elevators

No evidence of subsurface hydraulic lifts or elevators was observed on the property during the site reconnaissance. Two aboveground hydraulic lifts were observed inside the garage. One was observed outside near one of the boxcars. For a picture of the hydraulic lift near the boxcar, refer to Photograph 5 of Appendix 2. Staining was noted on the soil near the outside lift.

3.2 Surrounding Land Use

Readily visible and publicly accessible portions of adjoining properties were examined for the presence of actual or potential recognized environmental conditions. A summary of the surrounding property use is presented below.

Table 2 – Adjoining Properties – Land Use

Boundary Side of Subject Site	Current Activity	Potential Sources of Contamination
North (across Depot Street)	Storage, office, and manufacturing space in the former L.C. Andrews Lumber Mill Facility	None observed
South and West (adjoining)	Former Keddy Mill Complex	Potential environmental impacts associated with former mill operations.
East (across railroad tracks)	Residential	None observed

To the north of the Subject Site is Depot Street. The adjoining property to the north, former L.C. Andrews lumber mill, currently houses a number of operations including: Windham and Gorham Self Storage; New England Antigenetics, a supplier of allergenic source material; and house construction companies. No apparent environmental concerns were observed from this adjoining property during the historical review.

Adjoining the Subject Site to the south and west is the former Keddy Mill Complex, an industrial site with potential environmental impacts from former mill operations. S.W. Cole investigated and remediated a #6 fuel oil spill at the former Keddy Mill Complex. The spill was located to the west of the Subject Site. Jacques Whitford has conducted supplemental environmental investigations at the former Keddy Mill, and a report of our findings has been prepared under separate cover. Impacts at the former mill identified to date, which include the release of PCBs, are not likely to have impacted the Subject Site.

A single-family residence is located to the east of the Subject Site across the Maine Central Railroad tracks. No apparent environmental concerns were observed from this adjoining property during the historical review.

3.3 Historical Information

3.3.1 Historical Land Use for the Subject Site

Historical information describing the Subject Site was obtained from a variety of sources as detailed in **Appendix 3** and **Appendix 5** of this report.

A list of historical land uses for the Subject Site is provided in Table 3.

Table 3 – Historical Information for Subject Site		
Period/Date	**Land Use**	**Sources of Information**
1922 to prior to 1953	Residence and general store	Sanborn maps
1953 to prior to 1978	Commercial (H.K. Webster Stores in 1971)	Aerial photographs, City Directories
1978 to 1984	Blue Seal Feeds	City Directories
1984 to 1996	Depot Energy, Dave's Pool Sales & Service	City Directories
1996-2000 (currently vacant)	Auto repair	City Directories

Sanborns maps dated 1922 and 1944 show that the Subject Site was developed as a residence and general store in or prior to 1922. The Maine Central Railroad station was located to the east of the railroad tracks at that time.

A 1953 aerial photograph showed two small unknown structures at the Subject Site. In 1962, the Subject Site was developed with one building. A number of large square objects were visible within the southerly portion of the site and 50-60 autos were observed parked at the property on a 1962 aerial photo. The H.K. Webster Stores of Maine, Inc. was identified as a site occupant in the 1971 City Directory.

On a 1975 aerial photograph, the railroad station is visible off-site to the east of the tracks. The warehouse and garage are in their present location. Neither the boxcars nor the 10,000-gallon AST are visible. Many automobiles are visible at the site.

The former railroad station was moved to the site in 1984. Historically, the former depot station was located on the eastern side of the Maine Central Railroad tracks directly south of Depot Road.

Blue Seal Feeds was identified as a site occupant in the 1978 and 1982 City Directories.

Depot Energy was first listed as a Subject Site occupant in the 1984 City Directory. It was listed in a 1994 Assessor's record as "Energy Depot-coal Storage/sales former train station owned by Merrill Lasky."

Dave's Pool Sales and Service was also listed as a site occupant in the 1984 City Directory.

Historically, the garage was used as a general store. Most recently, the garage was used as an automotive body repair and transmission shop. The current owner, Joe Kittrell, operated the site as an auto repair business then purchased it in 2000. Thirteen B Enterprises, auto repair, was also listed as a site occupant in the 2000 City Directory.

3.3.2 Historical Land Use for Adjoining Properties

Historical information describing the adjoining properties was obtained from a variety of sources as detailed in **Appendix 3** of this report.

A list of historical land uses for the adjoining properties is provided in Table 4.

Table 4 – Historical Land Use for Adjoining Properties

Direction from Subject Site	Period/Date and Land Use	Sources of Information
North (across Depot Street)	The L.C. Andrew lumber mill was located across Depot Street from the subject site from prior to 1922 to the 1990s. Since the 1990s, the mill complex has been occupied by a variety of tenants.	Sanborn maps and city directories
South and west (adjoining)	The Keddy Mill complex has been located to the south and west of the subject site since prior to 1922.	Sanborns maps
East (adjoining and across the MCRR tracks)	The Maine Central Railroad tracks have been in place since the 1870s. To the east of the tracks, was the passenger station which was moved to the subject site in 1984. A dwelling was also depicted on the parcel on the 1922 and 1944 Sanborns maps.	Sanborn maps and City Directories

City directory listings for the L.C. Andrew parcel list Marrifield Buildings (single family housing construction); New England Antigenetics, a supplier of allergenic source material; Giguere Auction Company; Artel, Inc. Research; Windham and Gorham Self Storage; Terry Ladd Construction; Soberajas Foreign Auto and service; Merryfield Builders; and Paul T. Gore Moving and Storage.

3.3.3 Ownership

According to Windham Assessor's Office information, the property is currently owned by Joseph Kittrell, 656 Stroudwater Street, Westbrook, Maine 04092.

3.4 Regulatory Review

3.4.1 State/Municipal Information

Jacques Whitford utilized the services of Environmental Data Resources, Inc. (EDR) to perform a search of federal and state environmental databases for sites of potential environmental concern within applicable ASTM radii. The Subject Site was identified on the databases searched by EDR. A copy of the EDR report is presented in this report as **Appendix 5**.

NPL Sites - EDR did not identify National Priority List (NPL) or proposed NPL sites within 1.0 mile of the Subject Site.

CERCLIS Sites - EDR did not identify Comprehensive Environmental Response Compensation Liability Information System (CERCLIS) sites within 0.5 miles of the Subject Site.

CERCLIS-NFRAP Sites – EDR did not identify CERCLIS No Further Remedial Action Planned (NFRAP) sites within 0.25 miles of the Subject Site.

CORRACTS – EDR did not identify Resource Conservation and Recovery Act (RCRA) Corrective Action (CORRACTS) sites within a 1.0-mile radius of the Subject Site.

RCRA - SQG – EDR did not identify RCRA Small Quantity Generator (SQG) sites on or adjoining the Subject Site.

RCRA - LQG – EDR did not identify RCRA Large Quantity Generator (LQG) sites on or adjoining the Subject Site.

RCRA TSD Facilities - EDR did not identify RCRA hazardous waste treatment, storage, or disposal (TSD) facilities located within 0.5 miles of the Subject Site.

ERNS Reports - EDR did not identify Emergency Response Notification System (ERNS) reports for the Subject Site.

3.4.2 State/Municipal Information

State Landfills – EDR did not identify landfills located within a 0.5-mile radius of the Subject Site.

State Hazardous Waste Sites (SHWS) – EDR did not identify SHWS facilities located within a 1.0-mile radius of the Subject Site.

Leaking Underground Storage Tank (LUST) Sites – EDR identified the target property as a LUST site. EDR also identified two properties within a 0.5-mile radius of the Subject Site as LUST sites.

Energy Depot, the Subject Site, was identified on the LUST database. The current status is listed as Final Report (FR). No additional information was readily available from the Portland office of the MDEP.

Emergency Management Bunker, mapped 2,489 feet to the south of the Subject Site, is listed on the LUST database. The current status is listed as Final Report (FR). Based on its relative position with regard to the site and the inferred groundwater gradient, this LUST site is unlikely to impact the Subject Site.

Little Falls Mini Mart mapped approximately 2,000 feet to the southeast of the Subject Site, is listed on the LUST database. The current status is listed as Final Report (FR). Based on its relative position with regard to the site and the inferred groundwater gradient, this LUST site is unlikely to impact the Subject Site

Registered USTs – EDR identified the target property as a UST site. EDR indicated the removal of a 500-gallon UST used as storage for unleaded gasoline for the target property in 1993. No other USTs were identified at the Subject Site or adjoining properties.

Voluntary Response Action Program (VCP/VRAP) Sites – EDR identified one VCP site within 0.5 miles of the Subject Site. The Little Falls Mini Mart, mapped approximately 2,000 feet to the southeast of the Subject Site, is listed on the VCP database. Based on the current status and the position of the former Little Falls Mini Mart relative to the Subject Site and the inferred groundwater flow direction, this VCP site is unlikely to impact the Subject Site.

3.4.3 Orphan Sites

EDR orphan site designation indicates insufficient address information for the site to be plotted. EDR identified 27 orphan sites. L.C. Andrews Lumber, adjoining the Subject Site to the north, was listed as an orphan site because it was included in the Maine Voluntary Response Action Program List database; this site VRAP site is no longer active and is not likely to impact the Subject Site. Although the other identified orphan sites may be within the search distance prescribed by the ASTM criteria, they do not appear to adjoin the Subject Site. Based on this information and a review of the database/records information, it appears that the identified orphan sites do not represent evidence of a recognized environmental condition in connection with the Subject Site.

3.5 Previous Environmental Reports

Jacques Whitford reviewed a UST Site Assessment Report written in November 1993 for Merrill and Camilla Laskey, the former owners of the Subject Site. The report, prepared by Acadia Environmental Technology (Acadia) of Portland, Maine, addressed a 500-gallon UST removed from 13 Depot Street on October 28, 1993.

The tank was located as indicated on Figure 2. The tank was installed in 1988 with galvanized underground piping. Upon removal, the UST showed light pitting on one end. The condition of the underground piping was reported to be excellent. A gasoline pump was enclosed directly above the tank in a small shed. Acadia reported a PID jar headspace result of 591 ppm in "black, wet, coal, organic, clay" approximately 3 feet below ground surface from the north end of the tank grave. All other PID readings were less than 100. A laboratory sample yielded 77 mg/kg by MDEP Method 4.2.3 for gasoline. During the tank removal, Acadia contacted Jon Woodard of the MDEP and was instructed to collect the laboratory sample, backfill the excavation and report the results. EDR listed the status of the tank removal as "Final Report".

4.0 PHASE II ESA

During our site walk at 13 Depot Road property on April 29, 2004, we noted recognized environmental conditions including soil staining, hydraulic lifts potentially containing PCBs, a removed gasoline underground storage tank, and a floor drain in the garage at the property.

Based on these observations, we proposed Phase II fieldwork including testpitting and collecting soil samples for laboratory analysis. Between May 7 and 12, 2004, Jacques Whitford performed Phase II fieldwork at the subject site. These included three samples for PCBs, three for volatile organic compounds (VOCs), two for gasoline range organics (GRO) and two for the 8 RCRA metals (total). Jacques Whitford used the following Phase II fieldwork procedures described below.

4.1 Methodology

On May 7, 2004, Jacques Whitford observed test pitting conducted by Les Wilson & Sons (Wilson) of Westbrook, Maine. Wilson used a Case track-mounted excavator with a 1-cubic yard bucket. Wilson dug 10 testpits at the locations depicted on Figure 2 (TP-1 to TP-10). Testpits were terminated at bedrock refusal between 1.8 and 10 feet below ground surface (bgs). Soil observations recorded by the Jacques Whitford geologist are included on the attached testpit logs (Appendix 6).

At each of the testpit locations, Jacques Whitford collected bag headspace samples at 2-foot intervals. Each soil sample was field screened for volatile organic compound (VOC) content using a PID. From each interval, approximately 250 grams of soil was placed in a one-quart Ziplock grand bag and screened according to the MDEP's *Field Determination of Soil Hydrocarbon Content by Jar/Poly Bag Headspace Technique* in the Maine Chapter 691 Rules for Underground Oil Storage Facilities, Appendix Q. We used a Thermo 580B PID calibrated to 320 ppm and a MSA Photon calibrated to 225 ppm with standard 100-ppm isobutylene gas.

We also collected bag headspace samples at five surface sampling locations (HS-1 to HS-5) for PID testing. Based on PID readings and location, we chose three of the sample intervals for chemical testing for gasoline range organics and/or volatile organic compounds. We tested the sample from TP-4, adjacent to the former railroad station and downgradient of the former gasoline UST with a PID reading >1000 ppm, for both gasoline range organics (GRO) and volatile organic compounds (VOCs). We also selected the interval with the highest PID reading from TP-2, located adjoining a boxcar with transmissions, and TP-3, from the central location of the parking area for VOC analysis.

In addition, we collected samples (SS-1, SS-2, and SS-3) for PCB testing. These three samples were from an area of surficial soil sampling near stored transmissions (SS-1), from an area of surface soil staining next to an aboveground hydraulic lift (SS-2), and from sediment in the floordrain in the garage (SS-3). The floordrain sample was collected because of the proximity of the floordrain to an aboveground hydraulic lift in the garage.

Two surficial soil samples (SS-4 and SS-5) were collected for metals testing. These were from the stained soil in the SS-1 area and from an area of surficial soil staining near one of the boxcars at the site respectively. Refer to Figure 2 for sample locations.

Jacques Whitford placed the soil samples in laboratory supplied containers in a cooler on ice and shipped them under Chain of Custody via FedEx to Spectrum Analytical in Agawum, Massachusetts for testing. Testing results are discussed below.

4.2 Results

Fieldwork provided information about surficial geology and soil quality. Groundwater was not observed in the testpits with the exception of TP-5, TP-7, and TP-10 where minimal groundwater seepage was encountered.

4.2.1 Surficial Geology

Jacques Whitford characterized the overburden geology at 10 testpit locations at the site. The generalized overburden profile consisted of up to 4 feet of granular fill over silt-rich Presumpscot glaciomarine sediment over bedrock. At two of the testpits (TP-8 and TP-9), we found sandy Presumpscot glaciomarine sediment between the silt and the bedrock. Overburden materials are summarized in Table 5. Soil descriptions are included on testpit logs in Attachment 6.

Table 5 – Geological Unit Depths

Location	Fill	Fine-Grained Presumpscot	Coarse-Grained Presumpscot	Bedrock
TP-1	0-0.5	0.5-1.8	NP	1.8
TP-2	0-2.5	2.5-6.0	NP	6.0
TP-3	0-2.5	2.5-6.0	NP	6.0
TP-4	0-3.7	3.7-9.0	NP	9.0
TP-5	0-4.0	4.0-10.0	NP	10.0
TP-6	0-2.7	2.7-8.0	NP	8.0
TP-7	0-3.5	3.5-6.0	NP	6.0
TP-8	0-1.6	1.6-7.0	7.0-8.0	8.0
TP-9	0-1.8	1.8-7.2	7.2-8.5	8.5
TP-10	0-3.7	3.7-10	NP	10.0

Notes:
1. Depths are in feet below ground surface.
2. NP denotes not present.

4.2.2 Soil Quality

Olfactory evidence of petroleum was observed in TP-4. Otherwise, no overt evidence (visual or olfactory) of petroleum was observed at the site. PID readings collected during testpitting at the site are summarized in Table 6. These readings vary from 7 to over 1,000 ppm. The only readings over 100 ppm were in TP-2, TP-3, and TP-4. We recorded readings of > 1000 ppm at 2-4 feet and 4-6 feet below ground surface in TP-4 at approximately the interface between fill and Presumpscot silt. The PID readings in TP-4 decreased with depth below the 4-6 foot depth interval. TP-4 is located in a downhill direction from the removed gasoline UST at the site.